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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,872	02/08/2001	Shusou Wadaka	2565-0225P	9099

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EXAMINER

BUDD, MARK OSBORNE

ART UNIT PAPER NUMBER

2834

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/778,872	<b>Applicant(s)</b> WADAKA ET AL.	
	<b>Examiner</b> Mark Budd	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3-10-03 (appeal brief).
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input checked="" type="checkbox"/> Other: <i>examiners answer</i> .     |

Art Unit: 2834

This is in response to the brief on appeal filed .

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

Art Unit: 2834

3676724	Berlincourt et al	7-72
3401275	Curran et al	9-68
5194836	Vale et al	3-93
5185589	Krishnaswamy et al	2-93
5259804	Japan	10-93

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 24-33 and 40 are rejected under 35 USC 102 as anticipated by Krishnaswamy, Curran, Vale or Japan (804). The references explicitly teach the structure claimed. For example, fig. 7 of Krishnasawamy teaches a wafer #57, #53, a ground electrode #56, #52, a piezoelectric thin film #51, #55 and an upper electrode #50, #54. Vale (figs. 1 and 2) shows wafer #30, #70, piezo wafer #85, a bottom electrode #80 and a top electrode #90. Curran (fig. 8) teaches wafer #24, common electrode 330, #32, piezoelectric thin elements #26 and top electrodes #28. Japan (804) (figs. 4 and 5) shows bottom electrode #4, piezo resonator 32 (thin portion), and top electrode #6, #7, #8, #9. The references don't explicitly teach each step used to produce the claimed structure. However, in product-by-process claims it is the product that must stand or fall on its own merits. The article is blind as to how it is manufactured. Method steps are irrelevant to the patentability of an article even in product-by-process claims. Note e.g. In re Thorpe 777 F. 2d 695.

Claim 34 is rejected under 35 USC 103 as unpatentable over Japan (804), Vale or Curran.

Art Unit: 2834

As noted above the references teach the claimed structure except for the specific materials. However, selection from among known suitable materials has long been held to be within the skill expected of the routineer. Each of the specific claimed materials is already well known as a substrate, piezoelectric transducer or electrode material (official Notice taken). Thus selection of any of these materials would have been obvious to one of ordinary skill in the art.

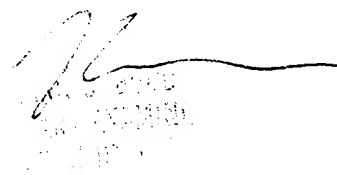
**(11) Response to Argument**

Applicants basically make two arguments. The references don't show a wafer, and the references don't modify any characteristics of the resonators. A wafer is clearly shown by Corran #24, Berlincourt #12, Vale #30 and Japan (804) #3. The references all mention tuning at least the final frequency of each resonator (each with its own location on the wafer, thus wafer location based adjustments ) via addition or subtraction of mass.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Conferees:



budd/ds

09/05/0

Conferees

K. Tamai

A. Chaudhury